Amendments to the Specification

Please *add* the following two new paragraphs on page 3, after line 11 to the Summary of the Invention section, which ends with "...a preselected first threshold value."

In accordance with another aspect of the invention, provided is an apparatus for selecting between one of a first distance value (analog m value) and a second distance value provided to a distance element of a protective relay providing protection for a transmission line of a power system. The distance relay includes a calculation circuit adapted to provide the first distance value indicative of a distance between the protective relay and a fault, and a filter adapted to filter the first distance value to form the second distance value (filtered analog m value). The apparatus includes a first comparator having a first input adapted to receive the first distance value, a second input adapted to receive a first percentage of a zone reach value and an output. The first percentage of the zone reach value is greater than the zone reach value. The apparatus also includes a second comparator having a first input adapted to receive the first distance value, a second input adapted to receive a second percentage of the zone reach value and an output. The second percentage of the zone reach value is less than the zone reach value. The apparatus further includes an AND-gate having a first input coupled to the output of the first comparator, a second inverting input coupled to the output of the second comparator and an output, and an OR-gate having a first inverting input coupled

to the output of the AND-gate, a second input coupled to the output of the second comparator and an output.

In accordance with a further aspect of the invention, provided is a method for selecting between one of a first distance value (analog m value) and a second distance value provided to a distance element of a protective relay providing protection for a transmission line of a power system. The distance relay includes a calculation circuit adapted to provide the first distance value indicative of a distance between the protective relay and a fault, and a filter adapted to filter the first distance value to form the second distance value (filtered analog m value). The method includes comparing the first distance value to a first percentage of a zone reach value to form a first binary output. The first percentage of the zone reach value is greater than the zone reach value. The method also includes comparing the first distance value to a second percentage of the zone reach value to form a second binary output. The second percentage of the zone reach value is less than the zone reach value. The method further includes providing the first distance value to the distance element when the first binary output comprises a low binary value or when the second binary output comprises a high binary value, and providing the second distance value to the distance element when the first binary output comprises a high binary value and the second binary output comprises a low binary value.

Please *add* the following new paragraphs on page 3, after line 21 to the Brief Description of the Drawings section, which ends with "...as it approaches the set reach value."

Figure 4 is a logic diagram illustrating a portion of the system of the present invention.

Please *add* the following new paragraphs on page 8, after line 36, which ends with "...it does not have to be included with the circuit of Figure 2A."

Figure 4 is a logic diagram illustrating a portion of the system of the present invention. Referring to Figure 4, the comparators 24 and 38 of Figures 2A and 2B are included. Also included are an AND-gate 50 and OR-gate 54. The AND-gate 50 has a first input coupled to the output 40 of the comparator 38, a second inverting input coupled to the output 29 of the comparator 24 and an output 52. The OR-gate 54 has a first inverting input coupled to the output 52 of the AND-gate, a second input coupled to the output 29 of the second comparator and an output 56. Operating as described in connection with the switch 19, the m value is provided to the distance element 20 upon an occurrence of a binary low value for the output 52 of the AND-gate and a binary high value for the output 56 of the OR-gate (*i.e.*, m value is > $c * SET\,REACH$ or m value is < $k * SET\,REACH$), while the m_s value is provided to the distance element upon an occurrence of a binary high value for the output 52 of the AND-gate and a binary low value for the output 56 of the OR-gate (*i.e.*, $k * SET\,REACH$ < m value < $c * SET\,REACH$).

In operation, the first distance value *m* is compared to a first percentage of a zone reach value, in the instant example $c * SETREACH$, to form a first binary output provided to the AND-gate 50. The first distance value *m* is also compared to a second percentage of the zone reach value, in the instant example $k * SETREACH$, to form a second binary output provide to the OR-gate 54 and (inverted) to the AND-gate 50. The first percentage of the zone reach value is a value greater than the zone reach value, and the second percentage of the zone reach value less than the zone reach value. When the first binary output comprises a low binary value or when the second binary output comprises a high binary value, the first distance value *m* is provided to the distance element. When the first binary output comprises a high binary value and the second binary output comprises a low binary value, a second distance value, or the filtered m_s value, is provided to the distance element.